

**Notice of Allowability**

Application No.

10/661,670

Examiner

Kamran Afshar, 571-272-7796

Applicant(s)

BEJERANO ET AL

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/16/06 & 8/21/06.
2. ☒ The allowed claim(s) is/are 1-2, 5-13 and 16-22.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

## DETAILED ACTION

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. John E. Curtin, Reg. No.: 37, 602 on 8/16/06 & 8/21/06.

The application has been amended as follows:

#### **In The Claim(s):**

1. (Currently Amended) A method for grouping cells within a wireless telecommunication network comprising:

generating a sum of weighted values associated with each cell within [[a]] the wireless network, which represent a paging cost, and each edge between adjacent cells within the wireless network, which represent an updating cost, and grouping constraints; and

assigning a cell to a group based on the weighted value sums to route calls from the assigned cell.

2. (Previously Presented) The method as in claim 1 wherein the generation of the weighted value sums produces fractional values.

3. (Cancelled).

4. (Cancelled).

5. (Original) The method of claim 2 further comprising rounding the fractional values into integer values.

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6. (Original) The method as in claim 5 further comprising rounding the fractional values using region growing.

7. (Previously Presented) The method as in claim 5 wherein rounding further comprises using a variable, where the variable equals:

a first value, if elements  $i$  and  $j$  belong to different groups, or

a second value, if  $i$  and  $j$  belong to the same group.

8. (Original) The method as in claim 7 wherein the first value equals 1 and the second value equals 0.

9. (Original) The method as in claim 1 wherein the group comprises a location area associated with one or more wireless networks.

10. (Original) The method as in claim 5 further comprising approximating costs associated with updating and paging operations of one or more wireless networks from the rounded values.

11. (Currently Amended) A method for grouping cells within a wireless telecommunication network comprising:

generating a sum of weighted values associated with each cell in a line within [[a]] the wireless network, which represent a paging cost, and each edge between adjacent cells in a line within [[a]] the wireless network, which represent an updating cost, and grouping constraints; and

assigning a cell to a group based on the weighted value sums to route calls from the assigned cell.

12. (Currently Amended) A computer readable medium encoded with a computer program for grouping cells within a wireless telecommunication network operable operating to:

generate a sum of weighted values associated with each cell within [[a]] the wireless network, which represent a paging cost, and each edge between adjacent cells within [[a]] the wireless network, which represent an updating cost, and grouping constraints; and

assign a cell to a group based on the weighted value sums to route calls from the assigned cell.

13. (Previously Presented) The computer readable medium as in claim 12 wherein the ~~generation~~ generation of the weighted value sums produces fractional values.

14. (Cancelled).

15. (Cancelled).

16. (Currently Amended) The computer readable medium of claim 13 further ~~operable~~ operating to round the fractional values into integer values.

17. (Currently Amended) The computer readable medium as in claim 16 further ~~operable~~ operating to round the fractional values using region growing.

18. (Currently Amended) The computer readable medium as in claim 16 further ~~operable~~ operating to round the fractional values using a variable, where the variable equals:

a first value, if elements  $i$  and  $j$  belong to different groups, or

a second value, if  $i$  and  $j$  belong to the same group.

19. (Previously Presented) The computer readable medium as in claim 18 wherein the first value equals 1 and the second value equals 0.

20. (Currently Amended) The computer readable medium as in claim 12 wherein the group comprises a location area associated with one or more wireless networks.

21. (Currently Amended) The computer readable medium as in claim 16 further ~~operable~~ operating to approximate costs associated with updating and paging operations of one or more wireless networks from the rounded values.

22. (Currently Amended) A computer readable medium encoded with a computer program for grouping cells within a wireless telecommunication network ~~operable~~ operating to:

generate a sum of weighted values associated with each cell in a line within ~~[[a]]~~ the wireless network, which represent a paging cost, and each edge between adjacent cells in a line within ~~[[a]]~~ the wireless network, which represent an updating cost, and grouping constraints; and

assign a cell to a group based on the weighted value sums to route calls from the assigned cell.

### ***Allowable Subject Matter***

2. In view of the Amended claims as discussed above in item 1, Claims 1-2, 5-13 and 16-22 are allowed.

The following is an examiner's statement of reasons for allowance: 1-2, 5-13 and 16-22.

With respect to claims 1, 11, 12, 22 the prior art of record fails to disclose singly or in combination or render obvious that generating a sum of weighted values associated with each cell within the wireless network, which represent a paging cost, and each edge between adjacent cells within the wireless network, which represent an updating cost, and grouping constraints; and assigning a cell to a group based on the weighted value sums to route calls from the assigned cell.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kamran Afshar whose telephone number is (571) 272-7796. The examiner can be reached on Monday-Friday.

If attempts to reach the examiner by the telephone are unsuccessful, the examiner's supervisor, **Feild, Joseph** can be reached @ (571) 272-4090. The fax number for the organization where this application or proceeding is assigned is **571-273-8300** for all communications.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Kamran Afshar

**JEAN GELIN**  
**PRIMARY EXAMINER**  
